

FROM A.A.

BAGDASAROV, A.A., prof.; VASIL'YEV, P.S., prof.; FROM, A.A.

Problems in classification of blood substitutes. Vest. AMN SSSR 13
no. 4:58-61 '58. (MIRA 11:4)

1. Deystvitel'nyy chlen AMN SSSR.
(PLASMA SUBSTITUTES
classif. (Rus))

FROM, A.A., SABUROVA-DANILOVA, I.V.

Comparative results of traumatic shock therapy with antishock solution TsOLIPK-5. Khirurgia 34 no.7:75-79 J1 '58 (MIRA 11:9)

1. Iz TSentral'nogo ordena Lenina Instituta gematologii i prelivaniya krovi (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Bagdasarov) i Nauchno-issledovatel'skogo instituta skoroy pomoshchi imeni Sklifosovskogo (dir. - zasluzhenny vrach USSR M.M. Tarasov).

(SHOCK, therapy
special antishock fluid in trauma (Rus))

FROM, A.A., kand.med.nauk., CHERKOV, I.L., kand.med.nauk

Synthetic blood substitutes. Med.sestra 17 no.11:19-23 (MIRA 11:11)

1. Iz Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya
krovi, Moskva.
(BLOOD PLASMA SUBSTITUTES)

FROM, A.A., LIPATS, A.A., (Moskva)

Method for determining circulating blood volume in man with
the aid of polyglucin. Klin.med. 36 no.8:115-118 Ag '58 (MIRA 11:9)

1. Iz TSentral'nogo ordena Lenina instituta gematologii i perelivaniya
krovi (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Bagdasarov).

(BLOOD VOLUME, determ.

polyglucin method of determ. of circulating blood (Rus))

(DEXTRAN, ther.

polyglucin method of determ. of level of circulating
blood (Rus))

KOVALEV, D.F., kand.med.nauk; FROM, A.A.

Polyglucin in the prevention and treatment of surgical shock in patients with osteoarticular tuberculosis. Probl.tub. 38 no.6: 65-68 '60. (MIRA 13:11)

1. Iz Nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk V.F. Chernyshev, zam. dir. po nauchnoy chasti - prof. D.D. Aseyev) Ministerstva zdavookhraneniya RSFSR i Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (dir. - chlen-korrespondent AMN SSSR prof. A.A. Bagdasarov). (DEXTRAN) (BONES--TUBERCULOSIS) (SHOCK)

FROM, A.A.; NISEVICH, N.I. (Moskva)

Low molecular polyvinylpyrrolidone as a disintoxication agent.
Klin.med. 39 no.3:94-99 Mr '61. (MIRA 14:3)

1. Iz Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Bagdasarov) i kliniki detskikh infektsii II Moskovskogo meditsinskogo instituta (zav. kafedroy - prof. D.D. Lebedev).
(PYRROLIDINONE) (TOXINS AND ANTITOXINS)

FROM, A.A.; GRONVAL', A.; VALLENIUS, G.; ZOAR, B.

Antigenic nature of dextran-precipitating proteins, forming
spontaneously in normal human serum. Preliminary report.
Probl.gemat.i perel.krovi no.8:45-47 '61. (MIRA 14:9)

1. Iz otdeleniya klinicheskoy khimii universitetskogo gosptalya
Upsala (Shvetsiya) i Tsentral'nogo ordena Lenina instituta gemato-
logii i perelivaniya krovi (dir. - deystvitel'nyy chlen AMN SSSR
prof. A.A. Bogdasarov). Ministerstva zdravookhraneniya SSSR.
(DEXTRAN) (BLOOD PROTEINS)

FROM, A.A.; LAGUTINA, N.Ya., LIPATS, A.A.

Polyglucin as a hemostatic. Khirurgiia 37 no.5:70-75 My '61.
(MIRA 14:5)

1. Iz Tsentral'nogo ordena Lenina instituta gematologii i
perelivaniya krovi (dir. deystvitel'nyy chlen AMN SSSR prof.
A.A. Bagdasarov).

(DEXTRAN)

(HEMOSTATIS)

(HEMOPHILIA)

VINOKUROVA, G. P.; FROM, A. A. (Moskva)

Change in kidney function in patients with burn disease following
a transfusion with polyvinylpyrrolidone. Klin. med. no.8:66-68
'61. (MIRA 15:4)

1. Iz Tsentral'nogo ordena Lenina instituta gematologii i pereli-
vaniya krovi (dir. - deystvitel'nyy chlen AMN SSSR prof. A. A.
Bagdasarov)

(BURNS AND SCALDS)
(POLYVINYLPIRROLIDONE--THERAPEUTIC USE)
(KIDNEYS)

ABRAMOVA, Ye. V., kand. med. nauk; FROM, A. A., kand. med. nauk

Effectiveness of using low molecular polyvinyl pyrrolidone in treating acute gastrointestinal diseases in infants. *Pediatrics* no.4:35-39 '62. (MIRA 15:4)

1. Iz otdeleniya patologii rannego vozrasta (zav. klinikoy - prof. I. V. TSimbler) Instituta pediatrii AMN SSSR (dir. - dotsent M. Ya. Studenikin) i TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (dir. - deystvitel'nyy chlen AMN SSSR A. A. Bagdasarov[deceased])

(GASTROENTEROLOGY) (PYRROLIDINONE)

FROM, A.A.; SIROTENKO, A.V.

Mechanism of the action and prospects for the use of low-molecular
polyvinyl pyrrolidinone in the burn disease. Probl. gemat. i perel.
krovi 9 no.9:18-21 S '64. (MIRA 18:7)

1. TSentral'nyy ordena'Lenina institut gematologii i perelivaniya
krovi (direktor - dotsent A.Ye.Kiselev) Ministerstva zdravo-
okhraneniya SSSR, Moskva.

MURAZYAN, R.I.; GERASIMOVA, L.I.; FROM, A.A.

Use of blood substitutes in the treatment of extensive superficial
burns. Probl. gemat. i perel. krovi no.3:34-36 '65.

(MIRA 18:10)

1. Khirurgicheskaya klinika (zav. - prof. D.M.Grozlov) Tsentral'nogo
ordena Lenina instituta gematologii i perelivaniya krovi (direktor -
dotsent A.Ye.Kiselev) Ministerstva zdravookhraneniya SSSR, Moskva.

ACC NR: AP6029868

(A₁N)

SOURCE CODE: UR/0399/66/000/008/0059/0063

AUTHOR: Krasil'nikova, A. M.; Mikhaylova, Yu. M.; From, A. A.; Sirotenko, A. V.

ORG: Municipal clinical infectious Hospital No. 7/Chief Physician N. O. Zalesk e / (Infektsionnaya gorodskaya klinicheskaya bol'nitsa no. 7); Department of Infectious Diseases/headed by Prof. K. V. Bunin/I Moscow Order of Lenin and Order of the Red Banner of Labor Medical Institute im. I. M. Sechenov (I Moskovskiy meditsinskiy institut); Central Order of Lenin Institute of Hematology and Blood Transfusion/ Director Docent A. Ye. Kiselev/(Tsentral'nyy institut gematologii i perelivaniya krovi)

TITLE: Treating food poisoning with Polosukhin fluid and polyvinylpyrrolidone agents

SOURCE: Sovetskaya meditsina, no. 8, 1966, 59-63

TOPIC TAGS: food poisoning, disease treatment, drug ~~and~~ effect, digestive drug, digestive system disease

ABSTRACT: Victims of food poisoning suffering from collapse were treated with Polosukhin fluid, administered intravenously in 300—500 ml doses (in fluid therapy with physiological salt solution and

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UDC: 616.9-022.38-039:616.3-008.1]-085.391

ACC NR: AP6029868

glucose solution, Cordiamin, caffeine, ephedrine, and sometimes mezaton or norepinephrine). Diagnosis was confirmed by laboratory identification of *Salmonella* bacteria in 47 of the 100 patients. Polosukhin fluid was generally effective against collapse caused by food poisoning except in 5% of cases, but produced side effects. Polyvinylpyrrolidone agents were given intravenously to 114 patients with acute food poisoning (not always in collapse) in a dose of 300 ml (in one variant also with Cordiamin, Caffeine, ephedrine, or mezaton). Polyvinylpyrrolidone agents proved to be rapid and effective detoxicants with no side effects. Polyvinylpyrrolidone agents detoxify by binding toxins in the blood vessels and by diuretic action. [WA-50; CDE No. 12]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 003/

Card 2/2

PETROV, I.I., doktor tekhn.nauk, prof.; SYROMYATNIKOV, I.A., doktor tekhn. nauk, prof.; LITVINOV, V.N.; FROM, A.A.; GERSHKOVICH, S.F.; POPOV, S.N.; BOCHAROV, V.I.

In regard to the letter written by V.V.Artamonov, A.A.Fedorov, and M.I.Kiselev on "Improvement in the training of specialists in the field of electrification of industrial enterprises." Prom. energ. 15 no.9:55-59 S '60. (MIRA 13:10)

1. Nachal'nik elektrotsekh, g.Krasnoyarsk (for Litvinov). 2. Glavnyy energetik Kazgiprotsvetmet (for From). 3. Glavnyy energetik Novokemerovskogo khimkombinata (for Gershkovich). 4. Sverdlovskiy sov-narkhoz (for Popov). 5. Frunzenskiy politekhnicheskiy institut (for Bocharov).

(Electricians--Education and training)

(Electrification)

(Artamonov, V.V.) (Fedorov, A.A.) (Kiselev, M.I.)

9.4300

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S/112/60/000/006/013/032

Translation from: Referativnyy zhurnal, Elektrotehnika, 1960, No. 6, p. 248,
4.4804

AUTHOR: Fromberg, A. B. ²⁸

TITLE: The New "TR-33" ²⁸ (TR-33) Semiconductor Thermistor ²¹

PERIODICAL: Sb. materialov po avtomatiz. proizv. protsessov i dispetcherizatsii,
No. 3, Moscow, 1958, pp. 172-183

TEXT: The "Tsvetmetavtomatika" design office has developed the TR-33
thermistor as a pickup for a temperature protection relay. The TR-33 has a
temperature coefficient of resistance of 5.5% per 1°C. Volt-ampere character-
istics of the thermistor are given. ✓

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FROMBERG, A. B.

SOV/136-58-6-3/21

AUTHORS: Averbukh, M.A., Burnashev, A.A., Birger, G.I., Baysh, L.G.,
Zubkov, G.A., Zhiryakov, N.I., Isayev, D.V., Ovcharenko,
Ye.Ya., Fromberg, A.B. and Shneyerov, M.S.

TITLE: New Means for Automatic Testing and Control in Non-
ferrous Metallurgy (Novyye sredstva avtomaticheskogo
kontrolya i regulirovaniya v tsvetnoy metallurgii)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 6, pp 15-25 (USSR)

ABSTRACT: Many processes in non-ferrous metallurgy involve corrosive
media and the Konstruktorskoye byuro (Design Bureau)
Tsvetmetavtomatika (KB TsMA) have since 1955 been working
on pneumatic control methods, which are especially
suitable for such conditions. Other organisations named
by the authors as some of those working in the same
field are: Institut avtomatiki i telemekhaniki AN SSSR
(Institute of Automation and Telemechanics of the Ac.
Sc. USSR), NIITeplopribor, TsLA of the "Energochermet"
Trust and the "Tizpribor" Works. A wide range (Table 1)
is covered by the pneumatic transducers, produced by
the KB TsMA (Figures 1 and 2) in which use is made of a
corrosion-resistant Soviet plastic. A series of corrosion-
resistant valves have also been produced (Table 2),
including a diaphragm type with a position indicator

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SOV/136-58-6-3/21

New Means for Automatic Testing and Control in Non-ferrous Metallurgy

(Figure 3). For the continuous analysis of hydro-metallurgical solutions, the KB TsMA in 1957 developed (Figure 4) an automatic polarographic concentration-meter, type KAP-225, with a transducer type DAPK-226: this device has been successfully used at the "Elektrotsink" Works for analysing for cadmium in zinc electrolyte and is based on alternating-current polarography. The KB TsMA have developed a series of radioactive methods, particularly for level indication over a wide (type URP) (Figure 5) and a relatively narrow (type URPR) (Figure 6) range. A radioactive density-meter, type PR-150, independent of the mineralogical and size composition of pulp over a wide range has been successfully tested at the Zolotushinskaya obogatitel'naya fabrika (Zolotushinskaya Beneficiation Works) (ranges 1.5-2.5 and 1-2 kg/litre). Work is proceeding on other radioactive meters including a moisture meter, for concentrates and similar materials. Based on a corrosion-resistant, differential, thermoelectric anemometer (electrical circuit proposed by engineers V.A. Drozdov and A.M. Listov), a flowmeter for pure or air-diluted chlorine has been developed by the

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SOV/136-58-6-3/21

New Means for Automatic Testing and Control in Non-ferrous Metallurgy

KB TsMA; they have also developed an analyser (type GAKh-239) for chlorine which is accurate to $\pm 3\%$ and these two instruments are to be used in an integrated automation system being devised for the magnesium industry. The KB TsMA have developed an automatic installation for (Figures 7 and 8) controlling a single pump in relation to the liquid level. Another recent activity of this organisation has been the development of the type ATV-229 overheating protective device (Figure 9) and a twelve-point temperature signalling device (Figure 10). The ATV-229 device is to be produced by the Tsvetmetpribor Works. In collaboration with the Institut gigiyeny truda i profzabollevaniy ANU SSSR (Institute of Work Hygiene and Occupational Diseases of the ANS USSR), the KB TsMA have developed a device (Figure 11) for continuous measurement and recording of mercury-vapour concentration in air in the range $0.1 - 0.6 \text{ mg/m}^3$. This instrument (IKRPO45) (Figure 11) also gives an alarm signal if the concentration becomes excessive and its range is being extended in both directions.

Caed 3/3

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SOV/127-59-3-11/22

AUTHORS: Feygin, V.I. and Fromberg, A.B., Engineers

TITLE: Devices for the Protection of Bushings and Electric Motors From Overheating. (Apparatura dlya zashchity podshipnikov i elektrodvigatelyey ot peregreva)

PERIODICAL: Gornyy zhurnal, 1959, Nr 3, pp 41-45 (USSR)

ABSTRACT: On the basis of research conducted by the institut elektrotekhniki AN UkrSSR (The Electro-Technical Institute of the AS UkrSSR) and the Institut Energetiki AN BSSR (The Power Institute of the AS BSSR) the Design Office of Tsvetmetavtomatika developed a universal device for protecting bushings and windings of electric motors from overheating. The device (ATV-229) was built-in to motors of ventilators for local ventilation in the Degtyarka Copper Mine. Its working is based on the property of some thermoresistances to instantly reduce their resistance when a certain temperature is reached.

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SOV/127-59-3-11/22

Devices for the Protection of Bushings and Electric Motors From Overheating.

The Tsvetmetpribor Plant is producing this equipment. In 1958, a new device, called temperature signalizer ST-12, was developed. This device guards against the simultaneous overheating of 12 points of the motor, thus replacing twelve ATV-229 devices. There are 2 varieties of this device, the ST-12c-234 (figure 3) for automatic control of circuits, and the ST-12r-224 for manual control. The feelers of the device are semiconductor thermoresistances with relay characteristics. Thermo-resistances fixed on bushings or windings of motors are connected in series with electro-magnetic relays. The feeding of feeler circuits is made through a regulated transformer, four rectifiers assembled on germanium

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SOV/127-59-3-11/22

Devices for the Protection of Bushings and Electric Motors From Overheating.

diodes and a voltage divider. When overheating occurs in one of the 12 controlled points, a corresponding relay plugs in a general warning and a lamp is lighted which indicates the overheated point. There are 2 schemes and 1 photo.

ASSOCIATION: Tsvetmetavtomatika, Moscow

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ANFILOV, A.A., inzh.; BAKALEYNIK, Ya.M., inzh.; BIRGER, G.I.,
inzh.; BRUK, B.S., inzh.; BUROV, A.I., inzh.; GINZBURG, V.L.,
inzh.; ZABELIN, V.L., inzh.; ZAPLECHNYI, Ye.G., inzh.; ISAYEV,
D.V., inzh.; KLIMOVITSKIY, A.M., inzh.; KRYUCHKOV, V.V., inzh.;
KOTOV, V.A., inzh.; LEYDERMAN, A.Ye., inzh.; PODGOYETSKIY,
M.L., inzh.; SAZHAYEV, V.G., inzh.; SEVAST'YANOV, V.V., inzh.;
FILIPPOV, S.F., inzh.; FROMBERG, A.B., inzh.; SHNEYEROV, M.S.,
inzh.; ERLIKH, G.M., inzh.; VERKHOVSKIY, B.I., red.; ZUBKOV,
G.A., red.; KARKLINA, T.O., red.; OVCHARENKO, Ye.Ya., red.;
ANTONOV, B.I., ved. red.

[New means of automatic and centralized control for nonfer-
rous metal mines] Novye sredstva avtomatizatsii i dispetcher-
skogo upravleniia dlia rudnikov tsvetnoi metallurgii. Moskva,
Nedra, 1965. 93 p. (MIRA 18:4)

FROMBERG, B.M.										19									
Ca										Light filter for ultraviolet lamps. B. M. Fromberg and F. P. Oshchepkov. Russ. 44,317, Sept. 30, 1935. The filter is a globe of glass contg. CaO 4.5-6.0, SiO ₂ 68-72, MgO 3-4.5, Na ₂ O 15-17 and NiO 4.5-5.5%.									
PROCESSING AND PROPERTIES INDEX																			
COMMON ELEMENTS										COMMON VARIANTS INDEX									
METALLS INDEX																			
ALSO SEE METALLURGICAL LITERATURE CLASSIFICATION																			
SUBJECT INDEX										SUBJECT INDEX									
SUBJECT INDEX										SUBJECT INDEX									

CA FROMBERG, B.M.

PROCESSES AND PROPERTIES INDEX

192 AND 4TH EDITION

Viscosity of electric bulb glass of various compositions. B. M. Fromberg, Z. N. Tsyprenkova, and M. V. Rabinovich. *Abad. Nash S.S.S.R., (Ind. Tekh. Nauk, Inst. Mashinostroyeniya, Sovetskoye po Vysokoi Zhidkosti i Kolloid. Razrach. (Conf. on Viscosity of Liquids and Colloidal Solutions) 1, 341-81(1941).*—In the region of softening, the η is detd. by microviscous rearing of the elongation of a rod of the given glass, 3-6 cm. long, 0.15-0.5 cm. in diam., suspended on a nichrome wire, under loads P from 5 to 100 g. including the wt. of the suspension clamp and half the wt. of the rod. From the increase in length, ΔL , the time in sec., t , and the cross section area, S , of the rod, η is calcd. by $\eta = 0.81 LPt/gL$. In the region of fusion, a modified Volarovich rotating coaxial cylinder method is used. The crucible is Pt-Ir, 5 cm. high, inner diam. 3.8 cm. The rotating body is a hollow bottomless Pt-Ir cylinder 1.4 cm. in diam., 1.6 cm. high. Instead of this "open" cylinder, another, closed, type with a conical bottom was also used; it permits easier cleaning between experiments. For very high η , a solid Pt cylinder (rod) 4.5 cm. long, 0.5 cm. in diam., was found convenient; it permits the use of greater loads and extends the scope of measurements up to about 5×10^4 poises, as a result of which the gap between the fused and softened state, necessitating interpolation, is narrowed down from about 300° to 40-50°; the disadvantage is lowered accuracy. With both the closed cylinder and the solid Pt rod, calibration with fused B_2O_3 showed the app. const. b in $\eta = b(\rho - \rho_0)/\omega$ (where $\rho = \text{load}$, $\rho_0 = \text{friction at the bearings}$, $\omega = \text{angular velocity}$) to vary with ρ/ω ; it is essential to apply the correct value of b depending on the magnitude of ρ of the glass under investigation. Most reliable results in the

region of outright fusion are, however, obtained with the "open" cylinder for which $b = \text{const.}$ As a Pb-free glass for use in manuf. of incandescent elec. lamps, a dolomite glass, Na_2O 0.0, MgO 3.5, CaO 5.5, K_2O 5.0, K_2O 4.0, Na_2O 13.0% ("HD-1") was found suitable on a production scale and is recommended. Systematically investigated were PbO -dolomite, ZnO -dolomite, BaO -dolomite, K_2O -dolomite, Na_2O -dolomite glasses. Percentage compns. are given in the order SiO_2 , CaO , MgO , K_2O , Na_2O , PbO , ZnO , BaO . In the first group, 5 glasses 73-63, 5-3, 3-2, 4-0, 14-0, 0-10, 0-0, in the coordinate system log η against temp., 500° to 1200°, give close curves, for example, the glass with 55.5% SiO_2 , 7.5% PbO , at 500°, 700°, 1000°, 1200°, log $\eta = 12.5, 7.5, 3.8, 2.7$. Analogous groups of close curves, with similar numerical values, are found with Zn glasses (70.5-63, 5-3, 3-2, 4-0, 14-0, 0-0, 2-5-10, 0), Ba glasses (70.5-63, 5-3, 3-2, 4-0, 14-0, 0-0, 2-5-10, 0), K-Na glasses (73, 5-3, 3-2, 0-18, 18-0, 0-0, 0-0). From plots of temp. of equal log η against compn. (content in oxide RO = PbO , ZnO , BaO , or in Na_2O and K_2O) it is concluded that exchange of SiO_2 for RO lowers η at all temps.; this η -lowering effect of increasing amts. of RO is more pronounced in the region of low η ; Pb and Ba glasses have the closest log η -temp. curves, those for Zn glasses deviate therefrom to a greater extent; K_2O - Na_2O glasses show no min. at any compn. ratio, contrary to Gehlbhoff and Thomas (cf. C.A. 20, 3086); exchange of Na_2O for K_2O raises η gradually and slowly but the effect is negligible up to 1% K_2O . This exchange also raises somewhat the temp. interval of doubling η , from 8.7° for 0% K_2O , 18.0% Na_2O , to 12° for 18.0% K_2O , 0% Na_2O .

N. Thoms

1920M DOWNEY

1921ST ONE ONLY 151

FROMBERG, M.

At construction sites in Siberia. NTO 5 no.1:22-23 Ja '63.
(MIRA 16:5)

1. Predsedatel' soveta Omskogo obshchestvennogo instituta novatopv
stroitel'stva.

(Omsk—Building research)

ANDRIANOV, K.A.; FROMBERG, M.B., red.

[Heat-resistant organosilicon dielectrics] Teplo-
stoikie kremniorganicheskie dielektriki. Moskva, Ener-
giia, 1964. 375 p. (Polimery v elektroizotatsionnoi
tekhnikе, no.10) (MIRA 18:1)

ZABYRINA, K.I., kand. tekhn. nauk; FROMBERG, M.B., inzh.

Heat-resistant electric-insulating enamels. Vest. elektroprom. 27
no.8:17-23 Ag '56. (MIRA 10:9)

1. Vsesoyuznyy elektrotekhnicheskiy institut imeni V.I. Lenina.
(Enamel and enameling)

PROKBERG, I.B., Cond Tech Sci--(disc) "~~Heat-~~^{Heat-}resistant elect^{ical}
insulation ~~insulation~~^{coatings}. Studies in the field of polyorganosiloxens."
Mos, 1953. 24 pp (~~Cond Sci Res Project~~^{Classified} under ~~52~~ Gosplan USSR.
All-Union Order of Lenin Elect^{ical}-Engineering Inst in V.I. Lenin),
300 copies (K, 22-58, 110)

FROMBERG, M. B.

64-1-3/19

AUTHORS: Andrianov, K. A. , Corresponding Member of the AS USSR,
Fromberg, M. B.

TITLE: The Influence of Pigments and Catalysts on the Thermal Aging
Process of Polymethylphenylsiloxane Coatings (O vliyani
pigmentov i katalizatorov na protsessy teplovogo stareniya
polimetilfenilsiloksanovykh pokrytiy)

PERIODICAL: Kimicheskaya Promyshlennost', 1958, Nr 1, pp. 12 - 17 (USSR)

ABSTRACT: The destruction of the above-mentioned polymers by thermo-
oxidation is investigated by the application of hydrolysis
products from di- and trifunctional compounds, i.e. no li-
near ones which as it is known are more liable to a destruc-
tion by a heat influence. 2 investigation methods were used,
i. e. the determination of the temperature influence on the
elasticity of varnished samples and the loss of weight during
the aging process. The investigations showed that e.g. the
thermal resistance of the above-mentioned insulating paint is
to a great extent reduced by an addition of siccatives, that
is to say, proportionally to the activity of the catalyst.

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The Influence of Pigments and Catalysts on the Thermal Aging Process of Polymethylphenylsiloxane Coatings

This phenomenon is based on structure changes during the drying process. The influence of a zinc- or lead naphthenate resp. on the reduction of the thermal resistance which was not considerable at 250°C increased to a great extent the loss of weight of the investigation samples at 400°C, lead naphthenate being the more effective. By means of chemical analyses of the investigation samples it was found that the destruction took place in the Si-C binding as well as in the Si-O binding, whereon, however, a dependence on the type of the catalyst was observed. Salts of metals with stable valence (e. g. Zn-naphthenate) support the destruction of the Si-O binding, whereas alternatin valence - metal salts (e. g. Pb-naphthenate) destroy the siloxane binding and catalyse an oxidation of the radicals. Investigations at a polymethylphenylsiloxane varnish showed that an addition of pigment reduces its thermal resistance, that is to say, considerably up to 10 %, then less, the chemical composition of the pigment playing an important part. Hence it is concluded that a maximum of 20 - 30 % of pigment is to be added, whereon for instance titanium oxide is better suited since it is

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64-1-3/19

The Influence of Pigments and Catalysts on the Thermal Aging Process of Polymethylphenylsiloxane Coatings

more abundant than lithopone. Experiments were carried out at 250 and 400°C in order to explain the mechanism of temperature aging of pigmented samples. Here was found that chrome yellow had at 400°C the greatest destructive effect. Comparingly it is said that the pigments and fillers reduce the thermoplasticity of polymethylphenylsiloxane, whereas the thermostability of the polyester-modified polymethylphenylsiloxanes increase by the pigmentation, whereby a greater portion of pigments reduces the destruction by thermooxidation and increases the thermal resistance at higher temperatures. There are 8 figures, 4 tables, and 5 references, 2 of which are Slavic.

AVAILABLE:

Library of Congress

1. Coatings-Aging-Effects of pigment
2. Coatings-Aging-Effects of catalysts
3. Polymethylphenylsiloxane coatings-Aging analysis
4. Polymers-Deterioration-Analysis

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AUTHORS: Zabyrina, K. I., Candidate of
Technical Sciences, ~~Bromberg, M. B.~~,
Candidate of Technical Sciences SOV/105-58-8-6/21

TITLE: Lacquer Polymers in Electric Insulation (Lakovyie polimery v
elektricheskoy izolyatsii)

PERIODICAL: Elektrichestvo, 1958, Nr 8, pp. 28-37 (USSR)

ABSTRACT: At present, trends to replace natural raw materials, primarily nutritive plant oils, by new synthetic materials with better properties attain increasing importance. They are derived from various polyesters, epoxy resins, melamino formaldehyde resins, polyurethanes, polyamides, polyvinylacetals and other coating forming substances. Lacquer polymers on a basis of a new type of high-molecular substances, the polyorganosiloxanes are widely applied. Their application in electrical industry furnished a possibility to take up mass production of electrical equipment of H-grade insulation quality for operational temperatures of 180°C and in some cases even of from 250-300°C (Refs 1,2). These polymers permit to increase considerably the damp resistivity of insulation, the operational safety of electrical machines and to reduce the consumption of material. A survey of

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these lacquer polymers is given. 1) Polyesters fall into three groups with respect to the character of the components. a) Resins on the basis of polybasic acids and polyatomic alcohols which solidify on heating. b) Resins on the same basis, combined with unsaturated glycerites, fatty acids of volatile oils or with other compounds which solidify in the cold as well as in the heat. c) Resins on the same basis, to which unsaturated monomers were introduced. The lacquers used at present on the basis of modified polyester resins comprise: a) Impregnating lacquers, "glyphthal lacquer GF-95", b) adhesive lacquers - "glyphthal lacquer 115 GM 2", and "TGF-6 and TGF-8" c) Protective lacquers - grey arc-proof enamels, red enamels and the "nitroglyphthal enamel 1201" (air dried).

2) Polyurethanes: These lacquers have a considerable disadvantage. They can only be stored for a short period. This disadvantage was abolished by the introduction of latent diisocyanates. Recently, methods have been developed for the production of lacquer textures and glass-lacquer textures on the basis of polyurethane lacquers. On the same basis lacquer wires were developed. 3) Epoxy resins. The valuable properties of lacquer coatings from epoxy resins are a reason for their

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application as insulation coatings. At present OEP-341-1 and E-4100 have been developed and are already in use. 4) Polyamides. Lacquers on the basis of polyamide polymers combined with phenol formaldehyde resins are used for the production of highly resistive wires of the type PELR. 5) Polyvinylacetals. In the USSR, the polyvinylacetal lacquers "Metal'vin" are produced as enamel lacquers for highly resistive enamel wires, which are based upon polyvinyl formal and phenol-formaldehyde resin. The lacquer "Vinifleks" is produced on the basis of mixtures of acetal and phenol formaldehyde resin. 6) Polyorganosiloxanes. A perfection of the mechanical properties is achieved by the introduction of polar groups or of compounds of organic polymers with polar groups into the organic radical. The two principal schemes for the production of polyorganosiloxanes are given. A survey is given on the impregnating and protective lacquers produced on this basis and used in the USSR. There are 5 figures, 8 tables, and 35 references, 20 of which are Soviet.

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SOV/105-58-8-6/21

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy insitut im. V. I. Lenina.(VEI).
(All-Union Electrotechnical Institute imeni V. I. Lenin)

SUBMITTED: June 7, 1958

1. Electrical equipment--Insulation 2. Insulation (Electric)--Pro-
duction 3. Polymers--Applications 4. Varnishes

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FRONBERG M B

110-1-12/19

AUTHORS: Andrianov, K.A., Corresponding Member of the Ac.Sc. USSR
and Fronberg, M.B., Engineer.

TITLE: Heat-resisting Low-Temperature Drying Electrical Insulating
Enamels (Teplostoykiye elektroizolyatsionnyye emali
nizkotemperaturnoy sushki)

PERIODICAL: Vestnik Elektromyshlennosti, 1958, vol.29, no.1,
pp. 57 - 62 (USSR).

ABSTRACT: Most polyorgano-siloxanes require a curing temperature
of about 200 °C and it is, therefore, desirable to develop
materials of this type that can be cured at lower temperatures.
This can be done by the use of catalysts, particularly the
naphthenates of lead, magnesium, cobalt and zinc and also
oleates of various metals. In the enamels, that were developed,
the binder consisted of poly-methyl-phenyl-siloxane resins
which are products of combined hydrolysis and subsequent poly-
condensation of di- and tri-functional methyl (phenyl) haloid
silanes.
In the presence of catalysts, poly-methyl-phenyl-siloxanes
react at low temperatures and are gradually converted to an
insoluble gel. The chemical reactions that occur during this
process may be oxidation leading to cross-linkage, poly-
condensation resulting from interactions between two Si-OH

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groups with the evolution of water, or regrouping of the chains of poly-methyl-phenyl-siloxanes accompanied by breakdown of siloxane links and the formation of a cross-link structure by polymerisation.

Bi-valent metals in the catalysts promote oxidation but this is not the main process of hardening of poly-methyl-phenyl-siloxanes in the presence of catalysts at temperatures up to 150 °C. This statement is confirmed by the fact that salts of metals which cannot form higher oxides nevertheless have some catalytic effect. Poly-condensation resulting from the interaction of hydroxyl groups is always accompanied by a reduction in the content of OH groups as the viscosity of the polymer increases. However, determination of OH groups and water in the polymer during the process of interaction between poly-methyl-phenyl-siloxanes and lead naphthenate at 20 °C shows that increase in the viscosity of the polymer solution is not accompanied by reduction in the quantity of hydroxyl groups (see Table 1). Therefore, poly-condensation processes do not occur at this temperature.

Therefore, the main reaction during hardening in the presence of catalysts at low temperature must be re-grouping of the polymer chains with conversion of cyclic links into linear

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110-1-12/19

Heat-resisting Low-Temperature Drying Electrical Insulating Enamels

molecules with branched or net-like structure. The possibility of poly-condensation by the interaction of hydroxyl groups cannot be completely excluded.

Heat-resistant electrical insulating enamels [K]-19 and [K]-22 which, in the presence of catalysts harden at a temperature of 120 °C, were developed on the basis of poly-methyl-phenyl-siloxane resins modified by polyether. The properties of these products are described.

The duration of hardening depends on the type and quantity of catalyst. It will be seen from Table 2 that the most active catalysts are lead naphthenate and the naphthenate of lead and manganese. Table 3 shows that the use of hardening accelerators leads to some reduction in the thermal elasticity of the resin films. The naphthenate of lead and manganese gives the best overall results.

The low-temperature-drying enamels are very hard. At 120 °C, in the presence of naphthenate of lead and manganese, they dry much harder than enamels drying at temperatures of 180 °C (see Fig.4). The use of surface-active materials as catalysts improves the adhesion of the lacquers to steel.

The enamels have good dielectric properties, as will be seen

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from Table 5, which gives the volume resistivity and electric strength of enamel films. The good properties are well maintained after prolonged thermal ageing, as will be seen from Fig.6. The dielectric properties of the enamels are little affected by temperature or humidity. Resistivity and electric strength curves as functions of temperature and time are given in Figs. 1, 2 and 3.

The resins harden slowly in the presence of catalysts even at a temperature of 20 °C, but pigmentation retards this process. The data given in Table 7 and Fig.4 show that in the presence of a low-activity accelerator, the viscosity of enamel (K)-19 hardly changes after several months and if a more active catalyst, such as lead naphthenate or naphthenate of lead and manganese, is used, the increase of viscosity and the formation of gel takes place much more slowly than in unpigmented lacquer. In practice, it is best to mix in the accelerator immediately before use. These lacquers are recommended for the insulation of electrical machines working in moist conditions at temperatures up to 180 °C.

There are 7 tables, 4 figures and 6 references, 4 of which are Russian, 1 German and 1 English

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Heat-resisting Low-Temperature Drying Electrical Insulating Enamels 110-1-12/19

ASSOCIATION: VEI

SUBMITTED: August 23, 1957

AVAILABLE: Library of Congress
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FROMBERG, Mark Borisovich; TIMOKHINA, V.I., red.; VORONTS, K.P.,
tekhn.red.

[Heat-resistant electric insulation coatings] Teplostoikie
elektroizolatsionnye pokrytiia. Moskva, Gos.energ.izd-vo,
1959. 110p. (Moscow, Vsesoiuznyi elektrotekhnicheskii
institut. Trudy, no.65) (MIRA 13:2)
(Electric insulators and insulation)

S/661/61/000/006/069/081
D247/D302

AUTHORS: Fromberg, M. B., Andrianov, K. A. and Zabyrina, K. I.

TITLE: Block polymers from polyorganic silicones for electrical insulating coatings for air drying

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii, no. 6: Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len. 1958. Leningrad, Izd-vo AN SSSR, 1961, 299-300

TEXT: The text is in the form of a discussion in which A. F. Moiseyev (Moscow) took part. Some thermal and mechanical properties of the polymers (thermostable up to 200°C) are mentioned, and indirect evidence for their block structure is given.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina, Moskva (All-Union Electrotechnical Institute im. V. I. Lenin, Moscow)

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S/196/62/000/001/007/013
E194/E155

AUTHOR: Fromberg, M.B.

TITLE: The properties of silicone electrical insulating enamels and their application

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.1, 1962, 10-11, abstract 1B 62. (Lakokrasochn. materialy i ikh primeneniye, no.3, 1961, 33-39)

TEXT: The article describes silicone enamels dried at high temperatures (180-200 °C) and low temperatures (120-130 °C) which are used for the insulation of electrical machines and equipment of class H temperature rating. The amount and chemical nature of the pigments and fillers in the silicone suspensions greatly influence the processes of polymer ageing and therefore influence the thermal stability of the enamels. The sketch shows the influence of various pigments on the thermal-elasticity (determined according to ГОСТ 2256-59 (GOST 2256-59)) of films of polymethylphenylsiloxane lacquer at 200 °C. Except for some reduction in thermal elasticity the other heat-resistant

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characteristics of the films, such as stability of properties at high temperature, life of coating, etc. are improved by pigmentation. In high-temperature drying enamels grades ПКЭ-14 (PKE-14) and ПКЭ-15 (PKE-15) the binders were respectively polymethylphenylsiloxane lacquers grades К-48 (K-48) and К-44 (K-44). After heating to 200 °C for 300-400 hours, films of these enamels do not crack on bending round a rod 3 mm in diameter. After drying, enamel grade PKE-14, as compared with grade PKE-15, forms a harder coating with a greater resistance to oil. In general, the resistance to oil of the enamels depends upon the type of base and on the adhesion of the enamel to it. As the adhesion is impaired, the resistance to oil is reduced; enamels PKE-14 and PKE-15 deposited on an undercoat of impregnating grade polyethylphenylsiloxane lacquer grade ЭФ-3ЭСУ (EF-ZBSU) had the lowest resistance to oil. The insulating properties of the enamels are comparatively good and are not much altered when the temperature is raised to 200 °C while exposed to moisture. The resistivity $\rho = 10^{51} - 10^{11}$ ohm.cm, $\tan \delta = 0.01 - 0.08$, the [Abstractor's note: obvious printing error for $10^5 - 10^{11}$].

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electric strength is 60-90 kV/mm. Drying conditions of enamels are described; the drying time depends upon the temperature, and at 200-218 °C the time is reduced by a factor of 1.5-2, the film becomes harder, and the insulating properties are better. Special features of the technology of applying and drying two coats of enamel and also the method of coating windings impregnated with lacquer grade EF-ZBSU are described. The binder used in the low-temperature drying grades ПКЭ-19 (PKE-19) and ПКЭ-22 (PKE-22) is polymethylphenylsiloxane lacquer К-54 (K-54); the properties of these enamels are the same and they differ only in colour (PKE-19 is pink and PKE-22 is red-brown). They are dried at temperatures of 120-130 °C, i.e. at a much lower temperature than grades PKE-15 and PKE-14. The lower drying temperature is achieved by the use of a drying accelerator such as lead or manganese naphthenate. Enamels PKE-19 and PKE-22 form heat-resistant coatings, which after heat treatment at 120 °C have good insulating and mechanical properties, very little different from those of the high-temperature drying lacquers. A description is given of the processes that cause hardening of polymethylphenylsiloxane enamels in the presence

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of accelerators. Enamels PKE-19 and PKE-22 as compared with high-temperature drying enamels, have better adhesion to the undercoat of impregnating lacquers grade EF-ZBSU and to steel, but much worse adhesion to copper (therefore they are not recommended for direct deposition on a copper surface) and they are less resistant to oil. Enamels PKE-19 and PKE-22 dry at a temperature of 120-130°C in from 10 to 18 hours (depending upon the size of the product). They can also be dried at higher temperatures (up to 180-200 °C) and the drying time is then much shorter. Heat treatment at the higher temperature is recommended for machines and apparatus intended for tropical service and also when it is necessary to obtain better moisture resistance and a harder coating. There also exist cold-drying heat-resistant insulating enamels grades ПЭ-6 (PVE-6) and ПЭ-7 (PVE-7) in which the binder is a copolymer based on silicone and epoxide resins. The presence of free epoxide groups in the copolymer facilitates hardening of the lacquers by means of diamines; lacquer films are formed at room temperature. The drying time at a temperature of 20 °C is 18-24 hours. The films do not soften on heating and their

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E194/E155

thermal elasticity at 200 °C is 120-300 hours; the loss in weight after 28 days' ageing at 250 °C is 16-18%. Their heat resistance is not so good as that of the hot drying enamels. Physical, mechanical and electrical properties of cold-drying enamels are given. Enamels grades PVE-6 and PVE-7 may be used for insulating electrical plant and radio apparatus. They are particularly recommended for use in repairing electrical machines which operate for a long time at temperatures of up to 180 °C and also for the finishing coat of large electrical machines. The procedure for preparing the parts to be coated and the method of applying the cold-drying enamels are the same as for the high- and low-temperature drying enamels. ✓

[Abstractor's note: Complete translation.]

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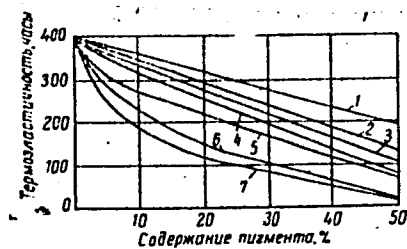
The properties of silicone ...

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E194/E155

Figure caption: Thermal elasticity at 200 °C of films of polymethylphenylsiloxane lacquer containing various pigments. 1 - chromic oxide; 2 - iron minimum; 3 - titanium oxide; 4 - lithopone; 5 - ultramarine; 6 - mars brown; 7 - aluminium hydroxide.

Inscription on y-axis reads: Thermal elasticity, hours.

Inscription on x-axis reads: Pigment content, %.



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S/190/61/003/011/010/016
B110/B101

15 8121 22 09, 14 07

AUTHORS: Andrianov, K. A., Fromberg, M. B., Zalyrina, K. I., Sorokina, L. I.

TITLE: Graft copolymers from polyorganosiloxanes and epoxy resin

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 11, 1961, 1692
- 1697

TEXT: Polar groups bound to Si are introduced to increase the mechanical strength and the adhesion of polyorganosiloxanes (POS). Since the stability of the Si-radical bond is often reduced by such introduction, graft or block copolymerization with polymers containing polar groups is recommended. The functional groups contained in the copolymer also permit reactions with bifunctional groups for POS hardening at room temperature. Epoxy resins (I) catalyze polycondensations of POS:

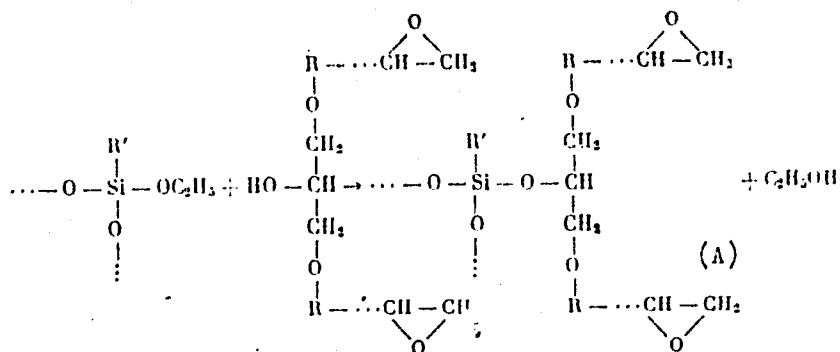
$$-\text{Si}-\text{OH} + \text{HO}-\text{Si}- \rightarrow -\text{Si}-\text{O}-\text{Si}- + \text{H}_2\text{O}$$
 to solid, unmelttable substances, particularly if POS contain OCH_3 or OC_2H_5 groups. It is assumed that the alkoxy groups of POS react with the hydroxyl groups of I according to
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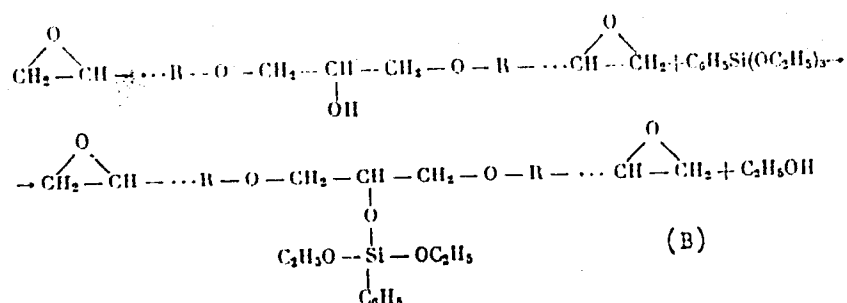
B110/B101



Phenyl triethoxy silane with I forms a homogeneous polymer with separation of $\text{C}_2\text{H}_5\text{OH}$,

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Graft polymers from polyorganosiloxanes... ²⁹⁷³⁹
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B110/B101



For producing graft copolymers the authors used polydimethyl phenyl siloxanes (II) or polydimethyl phenyl methyl siloxanes (molecular weights: 1000 - 1500, OH content 1.0 - 2.0%) with 3 - 6% methoxyl or ethoxyl groups. They obtained these polymers by hydrolysis of a mixture of $(\text{CH}_3)_2\text{SiCl}_2$ and $\text{C}_6\text{H}_5\text{SiCl}_3$ or $(\text{CH}_3)_2\text{SiCl}_2$, CH_3SiCl_3 , and $\text{C}_6\text{H}_5\text{SiCl}_3$ in water-alcohol medium. Since the dimension of the alkoxy group considerably affects the thermal decomposition, polymers with OCH_3 groups react at

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B110/B101

200 - 230°C, those with OC_2H_5 groups at 280°C. No copolymer is formed at an alkoxy group content < 3%. The copolymerization is accompanied by separation of $\text{C}_2\text{H}_5\text{OH}$ and decrease of epoxy groups, especially at increasing temperature. Investigations of the infrared spectra of polydimethyl phenyl methoxy siloxanes (III) and graft copolymers based on them confirm the reaction mechanism described. Turbidimetric analyses showed the homogeneity of III and its graft copolymers. The presence of epoxy groups in the copolymers permits hardening by means of diamines (polyethylene polyamine (IV), hexamethylene diamine (V), m-phenylene diamine, m-toluylene diamine) to nonthermoplastic varnish films which are highly thermoelastic at 200°C. The chemical nature of the hardener considerably affects the film properties. The high thermoelasticity of films hardened with IV and V is probably due to their evaporation at 200°C. Hardening is also performed at 130 - 150°C by means of polyphenyl alumosiloxanes (VI). III heated at 200°C for 4 hr and at 250°C for 10 hr has $T_v = 0^\circ\text{C}$, an indistinctly marked range of highly elastic deformation, and it flows at 20°C. In graft copolymers based on III and hardened for 72 hr at 20°C by means of IV, the value of highly elastic deformation grows, and flowing

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starts at 150°C. Structuration at 20°C is slow. After 120 hr, the temperature range of highly elastic deformation was much wider, and the flow temperature T_f was 330°C. Graft copolymer hardened with IV for 2 hr at 200°C has a steric structure, an insignificant highly elastic deformation, and a flow temperature of 450°C. Structurated polymer with a flow temperature of 425°C is formed by hardening with VI at 140°C within 2 hr. Varnish films from solutions of copolymers hardened at 130 - 150°C by means of VI form nonthermoelastic coats with higher mechanical strength and adhesion as coats from POS. There are 2 figures, 2 tables, and 2 Soviet references.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina
(All-Union Electrotechnical Institute imeni V. I. Lenin)

SUBMITTED: December 25, 1960

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S/062/62/000/001/006/015
B117/B101

11.2219

AUTHORS: Andrianov, K. A., Fromberg, M. B., Sorokina, L. I., and
Kirilenko, E. I.

TITLE: Polyorganoaluminoxanes and polyorganoaluminosiloxanes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh
nauk, no. 1, 1962, 78 - 86

TEXT: The composition, the structure, and properties of intermediates of polyorganoalumoxane synthesis, their conversion into polymers, and the possibility of producing compound polymers were investigated. Monomeric organoaluminum compounds were synthesized with azyloxy and chelate groups (Table 1). The solubility of the compounds obtained is largely affected by the nature of organic groups with aluminum. Aluminum isopropoxy dicaprylate and aluminum diisopropoxy caprylate are soluble, 8-hydroxyquinoline derivatives are poorly soluble in organic solvents. Dialkoxy derivatives, and above all aluminum dihalides are easily hydrolyzed by atmospheric moisture. Hydrolysis of benzoate aluminum dichloride always yields insoluble composite products, since the acyloxy group

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Polyorganoaluminoxanes ...

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is separated. Aluminum dihydroxy caprylate and aluminum dihydroxy-8-oxyquinolate were obtained (with almost theoretical yields) by hydrolysis of aluminum diisopropoxy caprylate and aluminum diisopropoxy-8-oxyquinolate which takes place at the alkoxy groups only, and does not destroy the chelate bond nor split off the acyloxy group. These hydroxy derivatives are poorly soluble in the usual organic solvents. Their infrared spectra showed absorption bands (3600 and 3430cm^{-1}) corresponding to associated HO---X and ---OH---X hydroxyl groups. Experiments have shown that the synthesis of polyorganoaluminoxanes proceeds via hydroxyl derivatives which are condensed with alkoxy groups into polymers either directly or due to a reaction with hydroxyl groups bound with aluminum. The interaction of hydroxyl derivatives of organoaluminum compounds with alkoxy derivatives is a general one. This reaction takes place among organoaluminum monomers and among organosilicon and organoaluminum compounds. Isopropyl alcohol is separated, and a polymer is formed by polycondensation of aluminum diisopropoxy-8-oxyquinolate with hydroxyl derivatives of organosilicon compounds. Polycondensation of aluminum diisopropoxy caprylate with α, ω -dihydroxy-methyl-phenyl siloxanes

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Polyorganoaluminoxanes ...

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yields linear polyorganoaluminosiloxanes. Such a polymer is elastic and well soluble in organic solvents. These properties are also preserved with continuous heating (200°C). Heterofunctional polycondensation of alkoxy derivatives of organoaluminum compounds also takes place with organosilicon compounds in which hydroxyl groups are replaced by other functional groups. In this process, caprylic acid is separated presumably due to the presence of HCl traces. Therefore, insoluble, steric polymers of compound structure are formed, but no linear molecules. There are 3 figures, 2 tables, and 7 references: 3 Soviet-bloc and 4 non-Soviet-bloc. The two references to the English-language publications read as follows: USA patent 2744074 (1956); English patent 783679 (1957). X

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina
(All-Union Electrotechnical Institute imeni V. I. Lenin)

SUBMITTED: July 19, 1961

Legend to Table 1: (1) Compound; (2) melting point, °C.

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FROMBERG, M.B.

Rheological properties of organosilicon enamel dyes. Trudy
VEI 71:27-34 '63. (MIRA 17:8)

FROMBERG, M.B.; PETRASHKO, Yu.K.

Synthesis of methylvinylhydroxysiloxanes with hydroxyl groups
at a silicon atom. Zhur.ob.khim. 33 no.10:3266-3269 0 '63.
(MIRA 16:11)

ZABYRINA, K.I.; FROMBERG, M.B.

Possibility of using bitumen solutions for the manufacture of
black lacquers. Lakokras. mat. 1 ikh prim. no.5:69 '63.
(MIRA 16:11)

1. Vsesoyuznyy elektrotekhnicheskiy institut imeni V.I. Lenina.

ACCESSION NR: AP4043820

S/0303/64/000/004/0019/0021

AUTHOR: Belkina, T. M., Zaby*rina, K. I., Limova, I. G., Fromberg, M. B.

TITLE: Binder coatings for mica insulation tapes, based on modified epoxy resins

SOURCE: Lakokrasochny*ye materialy* i ikh primeneniye, no. 4, 1964, 19-21

TOPIC TAGS: electric insulation tape, mica insulation tape, tape binder coating, tape saturation coating, modified epoxy resin, resin ED-6, resin E-40, polyester amide resin, binder coating insulating property, binder coating thermal stability, binder coating synthesis

ABSTRACT: The authors synthesized binders for synthetic mica insulation tapes intended for prolonged operation at 155C (heat resistance class F). The compositions were formulated from epoxy resins ED-6 or E-40 and polyester amide resins obtained by polycondensation of adipic acid, synthetic fatty acids, phthalic anhydride, glycerol and monoethylaniline. Tetraethoxysilane was used as the hardening agent. The hardening process is presented schematically and authors conclude that it represents a reaction between tetraethoxysilane and hydroxyl groups of the epoxy resin or the polyester, sometimes including a reaction between hydroxyl groups of the epoxy resin and alkoxy groups of the tetraethoxysilane. The synthesized coating retained viscosity of ~ 40 sec. over pro-

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ACCESSION NR: AP4043820

longed periods at an epoxy-polyester ratio of 100:40. Bonding capacity was best at 28.6% epoxy content. Saturation compounds and binders should contain 20-25% and 48-52% resin, respectively. Weight loss did not exceed 20-25% and bonding capacity remained at 25-30 kg over 30 days of heat aging. Thermal elasticity was 15-20 hrs. at 180C and up to 600 hrs. at 150C. Volume resistivity and dielectric strength values are also tabulated. "The mica insulation tape was prepared by O. M. Il'ina." Orig. art. has: 2 tables, 3 graphs and 1 chemical flow chart.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 002

OTHER: 004

Card

2/2

ACCESSION NR: AP4043330

S/0191/64/000/008/0064/0067

AUTHOR: Belkina, T. M.; Zaby*rina, K. I.; Limova, I. G.; Fromberg, M. B.

TITLE: Adhesives for film-coated electrical insulating board

SOURCE: Plasticheskiye massy*, no. 8, 1964, 64-67

TOPIC TAGS: coating, adhesive, electrical insulation, insulating board, triacetate, polyethylene terephthalate, polyethylene, glyceroterephthalate, polyglycerophthalate, castor oil, Rezyl, acrylonitrile resin SKN-40, polyvinylformalethylal VL-7, alkydemelamine MGM-8, ethyl alcohol, toluene, acetone, bonding strength, alkydemelamine ML-92, polymer adhesive, polymer solubility, polyethylene film, silicic acid ester

ABSTRACT: The mechanical and dielectric properties of triacetate and polyethylene terephthalate films used for coating electrical insulating boards are tabulated and compared. For bonding polyethylene terephthalate films to electrical insulating boards, polymers such as polyethylene glyceroterephthalate, polyglycerophthalate modified with castor oil (Rezyl) and acrylonitrile resin SKN-40 dissolved in acetone or in a 1:1 mixture of alcohol and acetone, with different modifiers, were tested. Commercial lacquers such as polyvinylformalethylal VL-7 and alkydemelamines MGM-8 and ML-92 were also tested, using an electric adhesiometer on 5-mm - wide coated strips. The adhesive was applied to

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ACCESSION NR: AP4043330

the cardboard in a thin layer and dried for 3-4 min. at 90C before the polymer film was applied to it; the sample was then kept under a pressure of 15-20 kg/cm² at 90 + 5C. The highest bonding strength was obtained with the Rezyl resin 90, modified with the ethyl ester of o-silicic acid. A plot of the stability of the Rezyl compositions against the content of the ethyl ester of o-silicic acid showed that the gelatinization time of Rezyl diminishes considerably with increasing ester content. The viscosity of bonding compositions with different solvents was plotted against storage time at 20 + 5C. Stable compositions were obtained by dissolving them in a mixture of alcohol and toluene (1:1) or ethyl alcohol-toluene-acetone (1:1:1). They remained stable for 5 months during which time their viscosity remained almost unchanged. The Rezyl adhesive modified with the ethyl ester of o-silicic acid (23-7) applied to metal showed high heat-stability and very good electrical characteristics, which did not change significantly in a humid atmosphere. The characteristics of the composition 23-7 and those of the bonded insulating board are listed. Orig. art. has: 2 figures, 2 tables and 1 chemical equation.

ASSOCIATION: None**SUBMITTED: 00****ENCL: 00****SUB CODE: OC, MT****NO REF SOV: 000****OTHER: 003****Card 2/2**

L 54445-65 EWT(m)/EPF(c)/EPR/EWP(j)/I Pc-4/Pr-4/Ps-4 WN/RM

ACCESSION NR: AP5012450

UR/0062/65/000/004/0660/0665
546.287

AUTHORS: Fromberg, M. B.; Petrashko, Yu. K.; Vozhova, V. D.; Andrianov, K. A.

TITLE: Double decomposition of alkyl(aryl)trisodium oxysilanes and methylphenyl dichlorosilane

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 4, 1965, 660-665

TOPIC TAGS: silane, IR absorption spectrum, polymerization, polycondensation, sodium compound

ABSTRACT: The double decomposition of trisodium salts of alkyl(aryl) silantriols and methylphenyl dichlorosilane was studied. In order to use the reaction for obtaining trifunctional splitting of oligomers with functional groups at the ends of the branches, the synthesis was carried out with 1 mole of alkyl(aryl) trisodium oxysilane for 3 moles of methylphenyl dichlorosilane. Sodium salts (obtained by treating alkyl(aryl)polysiloxanes with an alcohol solution of caustic soda) were used. The double decomposition reaction was carried out below 400 with gradual introduction into a solution of methylphenyl dichlorosilane of a suspension of the trisodium salt in toluene. Analysis of the resulting products

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L 54445-65

ACCESSION NR: AP5012450

shows them to contain but an insignificant amount of functional groups. The chlorine content was but 0.1% as against an expected 17.17%, on the assumption of the course the reaction would follow. Only traces of the hydroxyl group were detected after treatment with water. These data indicate that the double decomposition does not follow the expected pattern, but that it is apparently accompanied by hydrolytic processes that lead to the formation of cyclic compounds of complex structure. This view is supported by the presence of crystallization water in alkyl(aryl) silanetriols. For the double decomposition reactions, sodium salts of methyl, ethyl, and phenyl silanetriols were used. These yielded 1,7-dimethyl-3,5,9,11,14,16-hexamethylhexaphenyl bicyclo (5,5,5) octasiloxane; 1,7-diethyl-3,5,9,11,14,16-hexamethylhexaphenyl bicyclo (5,5,5) octasiloxane; and 1,7-diphenyl-3,5,9,11,16-hexamethylhexaphenyl bicyclo (5,5,5) octasiloxane. These compounds are low-viscosity liquids, soluble in benzene, toluene, and carbon tetrachloride, and insoluble in ethyl and methyl alcohols. The composition, structure, and properties of the compounds are tabulated. Infrared spectra of all compounds exhibit an absorption band in the 1080-1090 cm^{-1} region, corresponding to vibration of the Si-O bond in eight-member rings. No characteristic bond for Si-OH was detected. Supplementary experiments on catalytic polymerization and thermal polycondensation demonstrated that the compounds are polymerized by means of 1% NaOH at 80C and that thermal polycondensation, which was

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L 54445.65

ACCESSION NR: AP5012450

effected at 220-250C during long periods (up to 30 hours), does not produce changes in properties or composition of the synthesized compounds. These data support the view that the compounds have cyclic structure. Orig. art. has: 2 figures, 1 table, and 2 formulas.

ASSOCIATION: Elektrotekhnicheskiy institut im. V. I. Lenina (Electrical Engineering Institute)

SUBMITTED: 17Apr63

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 003

OTHER: 002

JO
Card 3/3

I. 00752-66 EPA(s)-2/MT(m)/EPF(c)/MP(c)/T

ACCESSION NR: AP5020974

UR/0190/65/007/008/1456/1462

AUTHOR: Andrianov, K. A.; Fromberg, M. B.; Belkina, T. M.

TITLE: Synthesis of trifunctional crosslike ester acids and of polyesters having a regular lattice structure

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 8, 1965, 1456-1462

TOPIC TAGS: ester, polyester plastic, polycondensation, adipic acid, dielectric loss, synthesis, polymer structure

ABSTRACT: Trifunctional ester acids were synthesized by reacting trimethylol-ethane or trimethylolpropane with a two-fold excess of adipic, azelaic or sebacic acid. Their properties were determined. The kinetics of the polycondensation of trimethylol-ethane and adipic acid in 1:1.5 and 1:6 ratios were investigated. In the first case the reaction is of the second order and in the case with excess adipic acid the reaction is first order. The reaction rate constants and the energy of activation of these polycondensations were calculated: $E = 20,600$ cal/mol

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L 00752-66

ACCESSION NR: AP5020974

3
(1:1.5 reactants), and 27,900 cal. mol (1:6). From this it was deduced that the reactant ratio, and not reaction temperature, determined whether ester acids of fixed structure, or branched polyesters which converted to insoluble 3-dimensional products, were formed. The trimethylolethanetriadipinate was condensed with the diglycidyl ether of di-p-hydroxydiphenylpropane. The effect of polymer structure on dielectric losses was investigated. In the regular lattice polymer $\text{tg } \delta$ was less temperature dependent than in polymers having the same composition but an irregular structure. Orig. art. has: 2 figures, 2 tables and 4 equations.

ASSOCIATION: Elektrotekhnicheskiy institut im. V. I. Lenina (Electrotechnical Institute) 44.15

SUBMITTED: 08Oct64

ENCL: 00

SUB CODE: GC, OC

NR REF SOV: 002

OTHER: 003

Card 2/2

PETRASHKO, Yu.K.; FROMBERG, M.S.; ANDRIYANOV, K.A.

Synthesis of ramified oligomers with the central silicon atom
and hydroxyl groups at the ends of branching. Izv. AN SSSR.
Ser. khim. no.9:1709-1711 '65. (MIRA 18:9)

1. Elektrotekhnicheskii institut im. V.I. Lenina.

FROMER, Rudolf

Again on geography and forestry. Przegl geogr 34 no.2:375-383
'62.

"The Stalinet-6 combine; its structure and work.", p 57, (KOOPERATIVNO ZEMEDELIE,
Vol 6, #1/2, Jan/Feb 1951, Bulgaria)

East European Vol 2, #8
SO: Monthly List of ~~Russian~~ Accessions, Library of Congress, August 1953, Uncl.

FROMIN, S. V., Dr.

Geometry, Algebraic

Principal concepts of linear algebra. Mat. v shkole No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

84970

S/056/60/038/005/051/057/XX
B006/B070

24.6600

AUTHORS:

Lozhkin, O.V., Perfilov, N. A., Rimskiy-Korsakov, A. A.,
Fromlin, J., Professor of Birmingham University, Great
Britain

TITLE:

Nuclear Disintegration¹⁹ in a Photographic Emulsion Caused by
930-Mev Protons

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 38, No. 5, pp. 1388 - 1398

TEXT: The present paper presents experimental investigations on the interaction of 930-Mev protons with emulsion nuclei, taking into particular consideration disintegrations with an emission of fragments with $Z \geq 3$. Particularly fine-grained emulsions of the type π -P(P-R), prepared in the laboratory of N. A. Perfilov, were used for the experiments. The irradiation was performed on the proton synchrotron in Birmingham. Fig. 1 shows the sensitivity characteristic of the P-R emulsion (without sensitizing with triethanol amine). Particles with $Z = 1 - 3$ were identified by the "scale method" first used by Yu. I. Serebrennikov (Ref. 6). The disintegration events were divided into heavy and light emulsion nuclei according to

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Emulsion Caused by 930-Mev Protons

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B006/B070

1) the charge sum of the particles in the disintegration ($\Sigma Z > 8$ - heavy nuclei), 2) the existence or nonexistence of recoil nuclei (existence - heavy nuclei), 3) the existence or nonexistence of short-range alpha particles ($< 50\mu$) or protons ($< 100\mu$) (existence - light nuclei). A total of 1054 stars with three or more prongs were analyzed, 905 of which were described as disintegrations of heavy nuclei and 149 of light nuclei. 11 events were established with two fragments having $12 > Z \geq 4$ with opposite directions of emission (8μ). These events, according to V. P. Shamov, are due to the disintegration of silver nuclei; of all stars with $Z \geq 4$ fragments about 5% were such. Fig. 2 shows the blackening distribution; Fig. 3 shows the distribution of $Z \geq 4$ fragment tracks with respect to their integral width. Figs. 4 and 5 show the relative probabilities of emission of $Z \geq 4$ fragments as a function of the particles participating in the disintegration at $E_p < 30$, ≥ 30 , and ≥ 100 Mev for Ag and Br nuclei. Fig. 6 shows the energy distribution of Li fragments in the disintegration of Ag and Br nuclei by 930-Mev and 6.2-Bev protons. Fig. 7 shows the distribution of solid angles between the fragments and the fast cascade particles. The numerical results for stars with three or more prongs are collected in a table:

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Emulsion Caused by 930-Mev Protons

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	Ag, Br	C, N, O
Mean number of particles		
H isotopes	3.7 \pm 0.8	2.6 \pm 0.7
He isotopes	0.8 \pm 0.1	1.7 \pm 0.3
Li isotopes	0.18 \pm 0.04	0.10 \pm 0.04
Z \geq 4 fragments	0.10 \pm 0.01	0.09 \pm 0.03
Cross section [mb]		
Li isotopes	135 \pm 31	20 \pm 8
Z \geq 4 fragments	62 \pm 11	18 \pm 5
Yield ratio		
$\frac{\text{He}^3 + \text{He}^4}{\text{H}^1 + \text{H}^2 + \text{H}^3}$	0.22 \pm 0.07	0.66 \pm 0.12
$\frac{\text{H}^2 + \text{H}^3}{\text{H}^1 + \text{H}^2 + \text{H}^3}$	0.18 \pm 0.8	-
$\frac{\text{Li}^8}{\text{Li}^6 + \text{Li}^7 + \text{Li}^8}$	0.012 \pm 0.009	0.03 \pm 0.04

A detailed discussion of the results is given in the last section of the work with particular reference to the fragmentation mechanism. There are
Card 3/4

Nuclear Disintegration in a Photographic
Emulsion Caused by 930-Mev Protons

84973

S/056/60/038/005/051/057/XX
B006/B070

11 figures, 1 table, and 27 references: 11 Soviet, 2 British, 1 French,
1 Italian, 1 Japanese, and 11 US.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of
the Academy of Sciences USSR)

SUBMITTED: November 18, 1959

Card 4/4

FEJES, Pal, dr. (Budapest, II., Pusztaszeri ut 59/67); FROMM-CZARAN, E. (Mrs)
(Budapest, II., Pusztaszeri ut 59/67); SCHAY, Geza, prof., dr.
(Budapest, II., Pusztaszeri ut 59/67)

Newer investigations in frontal gas chromatography considering the
variations of flow rate during the sorption. I. Acta chimica Hung
33 no.1:87-105 '62.

1. Zentralforschungsinstitut für Chemie der Ungarischen Akademie der
Wissenschaften.

FROMMER, Edgar, dr.; SZMUK, Imre, dr.

Nicotine-azobenzene-azoprotein. Orv. hetil. 96 no.13:347
27 Mar 55.

1. A Peterfy S.u.-i korhaz (igazgato: Lendvai Jozsef dr.)
prosecturajanak (osztalyvezeto: Braun Sandor dr.) es laboratoriumanak
(osztalyvezeto Szuk Imre dr.) kozlemenye.

(NICOTINE, derivatives,

nicotine-azobenzene-azoprotein)

(PROTEINS,

nicotine-azobenzene-azoprotein)

(BENZENE, derivatives,

nicotine-azobenzene-azoprotein)

FROMMER, Edgar, dr.

Medical records in the service of therapeutic and preventive medical practice. Nepegeszssegugy 37 no.3:81-83 March 56.

1. Kozlemeney a puspokladanyi jarasi tanacs vb. egeszssegugyi esportjatal (csoportveseto: Hadas, Miklos dr. jarasi foorvos).
(RECORDS, MEDICAL
in med. practice in rural areas, system & significance.
(Hun))

FROMMHOLZ, J: BOJANOWSKI, J: CHARONSKI, W.

A side-stowing dam made of wicker and reed slabs in longwalls of the General
Zawadzki Coal Mine. p.33

PRZEGLAD CORNICZY. (Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow
Gornictwa) Katowice, Poland
Vol. 15, no.1/2 Jan./Feb. 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no.7, July 1959

Uncl.

FROMOWICZ E. ... 11/8 Aug. 57

4903. FROMOWICZ E., LASKOWICKI St. and KOWALCZYK J. I Klin. Chor.
Wewn. A.M., Warszawa. *Wartość diagnostyczna bioptycznych badań nerek.
Diagnostic value of bioptic kidney tests POL. ARCH. MED.
WEWNET. 1956, 26/8 (1207)

In analogy to liver biopsies, on the basis of the liver test method, kidneys were
punctured and from the material thus obtained histological thin slips and smears
were prepared and stained. This method promises to be useful for diagnostic and
pathologic research.

FROMOWICZ, Kurt Karol

Clinical observations on the higher nervous function in pathogenesis of polycythemia and leukemias. Arch.immun.ter.dosw. 2:169-173 1954.

1. III Klinika Chorob Wewnętrznych Akademii Medycznej w Krakowie
(Dyrektor: prof. dr J. Aleksandrowicz)

(CENTRAL NERVOUS SYSTEM, in various diseases,
leukemia & polycythemia, higher nervous funct.
pathogen.role)

(LEUKEMIA, etiology and pathogenesis,
higher nervous funct.pathogen.role)

(POLYCYTHEMIA, etiology and pathogenesis,
higher nervous funct.pathogen.role.)

FROMOWICZ, Kurt Karol (Karkow, ul. Grabowskiego 7)

Granulocytopenia in otitis media. Polski tygod. lek. 9 no.25:780-781 21 June 54.

1. z III Kliniki Chorob Wewnętrznych Akademii Medycznej w Krakowie;
kierownik: prof. dr Julian Aleksandrowicz.
(AGRANULOCYTOSIS, complications,
otitis media)
(OTITIS MEDIA, complications,
agranulocytosis)

FROMOWICZ, Kurt Karol

Diphtherial pleurisy. Polski tygod. lek. 9 no.28:883-884 12 July 54.

1. Z III Kliniki Chorob Wewnętrznych A.M. w Krakowie; kierownik:
prof. dr Julian Aleksandrowicz.

(PLEURISY, bacteriology,

Corynebacterium diphtheriae)

(CORYNEBACTERIUM DIPHTHERIAE, infections,
pleurisy)

FROMOWICZ, Kurt, Karol, Krakow, ul. Grabowskiego 7

Considerations on the pathogenesis of primary polycythemia in the light of observations of its treatment. Polskie arch. med. wewn. 24 no.6 :993-1007 1954.

1. Z III kliniki chorob wewn. Akademii Medycznej w Krakowie;
kierownik prof. dr. med. J. Aleksandrowicz
(POLYCYTHEMIA VERA, etiology and pathobenesiss
findings in course of ther.)

EXCERPTA MEDICA Sec.6 Vol.11/1 Internal Med. Jan 57
FROMOWICZ K.K.

459. FROMOWICZ K.K., III Klin. Chorób Wewnętrznych A.M., Kraków. *Spół-
rzedzenia nad leczniczym wpływem demecolcyny w przewlekłych białaczkach
granulocytowych. First observations of the therapeutic ac-
tion of demecolcine in chronic myelogenous leukaemia
POL. TYG. LEK. 1955, 10/19 (602-604) Tables 1
Six cases of myelogenous leukaemia were treated and the immediate results were
excellent: the leucocyte count and the leucocyte maturation became normal, the
splenic enlargement disappeared nearly completely, the general condition and body

459

CONT.

weight, and also the erythrocytic picture showed considerable improvement. Unfortunately, the therapeutic effect of demecolcine disappears within 3 weeks of its discontinuation, so that maintenance doses should always be given. Demecolcine is without any doubt an extraordinarily active palliative therapeutic for chronic leukaemia. The results of a follow-up study of 25 cases will be published.
Fromowicz - Cracow (VI, 8, 18)

FROMOWICZ, Kurt, Karol

Modern views on certain phenomena of renal physiopathology.
Polski tygod. lek. 10 no.41:1343-1346 10 Oct 55.

1. Z III Kliniki Chorob Wewnętrznych A.M. w Krakowie;
kierownik: prof. dr. Julian Aleksandrowicz, Krakow,
Grabowskiego 7.

(KIDNEYS, patholog,
physiopathol.)

FROMOWICZ, Kurt, Karol

~~Spontaneous~~ cure of a large abscess of the lung. Przegl. lek.,
Krakow 11 no.1:16-17 Jan 55.

1. Z III kliniki chor. wewn. A.M. w Krakowie; kier. prof. dr.
J.Aleksandrowicz.

(LUNGS, abscess
healing, spontaneous)

(ABSCCESS
lung, spontaneous healing)

Fromowicz, K.-K.

EXCERPTA MEDICA Sec.2 Vol.9/10 Physiology, etc. Oct56

4828. FROMOWICZ K.-K. Third Clin. of Intern. Med., Craców. *Demecolcin
In the treatment of chronic granulocytic leukaemia REV.
BELGE PATH. 1955, 24/5 (352-355)

Demecolcin was given in oral doses of 1 mg. daily as well as by i.v. route to 12
patients with chronic myelogenous leukaemia. Good results are reported but no
details are given. The effects of the drug are rapid, non-toxic and selective, and
its use is recommended.

Lowther - Edinburgh (VI,2)

FROMOWICZ, K. K.

St. Liwzyc, K. K. Fromowicz, Z. Osterczy, and J. Polatynska-Wecawowicz: "Die Rolle des neurevegetativen Faktors in der Pathogenese der Nierenentzündung und Versuche ihrer Behandlung mit Phenothiazinderivaten," Das Deutsche Gesundheitswesen; Zeitschrift fuer Medizin. (Berlin), 11th Yr, No 30, 26 Jul 56, p. 1012.

Neuro-

Title: The Role of/Vegetative Factors in the Pathogenesis of Nephritis and the Investigation of its Treatment with Phenothiazine Derivatives.

From the Institute for General and Experimental Pathology, Medical Academy, Krakow (headed by Prof. Dr. Giedess) and from the No. 3 Clinic for Internal Diseases, Medical Academy, Krakow (headed by Prof. J. Aleksandrowicz).

LIWSZYC, Stanislaw; FROMOWICZ, Kurt Karol; OSTERCZY, Zbigniew;
POLATYNSKA-WECLAWOWICZ, Joanna

Vegetative factor in pathogenesis of nephritis and in attempted
application of phenothiazine derivatives. Polski tygod. lek. 11
no.22:977-981 28 May 56.

1. Z Zakladu Patologii Ogolnej i Doswiadczalnej AM w Krakowie;
kier. prof. dr. Br. Giedosz i z III Kliniki Chorob Wewn. AM w
Krakowie; kier. prof. dr. J. Aleksandrowicz, Krakow, ul. Kopernika
17, III Kl. Chor. Wewn.

(NEPHRITIS, experimental,

autonomic factor in, eff. on chlorpromazine ther. (Pol))

(CHLORPROMAZINE, effects,

on exper. nephritis, autonomic factor in (Pol))

(AUTONOMIC NERVOUS SYSTEM, in various diseases,

exper. nephritis, role in chlorpromazine ther. (Pol))

FROMOWICZ, Kurt Karol; PALESTER, Malgorzata

Result of the treatment of acquired hemolytic anemia with nitrogen mustard. Polskie arch.med. wewn. 26 no.11:1725-1726 1956.

1. Z III Kliniki Chorob Wewnętrznych A.M. w Krakowie
Kierownik: prof. dr. med. J. Aleksandrowicz, Krakow, ul. Grabowskiego 7.

(ANEMIA, HEMOLYTIC, therapy,
nitrogen mustards in acquired (Pol))
(NITROGEN MUSTARDS, therapeuticuse,
anemia, hemolytic acquired (Pol))

FROMOWICZ, Kurt Karol; JANICKI, Kazimierz

Oscillations on leukocyte numbers in 24-hour amount of urine
in leukemia patients. Polski tygod. lek. 12 no.5:174-177 28
Jan 57.

1. (Z III Kliniki Choroób Wewnętrznych Akademii Medycznej w
Krakowie; kierownik: prof. dr. J. Aleksandrowicz). Adres:
Krakow, ul. Grabowskiego 7.

(LEUKEMIA, urine in
leukocytes, fluctuation in chronic granulocytic
leukemia (Pol))

WIR...Z, KURT KAROL

SILINK, Karel; FROMOWICZ, Kurt Karol; GODLEWSKI, Julian; ZURAWSKI, Ludwik

Case of Graves-Basedow disease treated with radiiodine.
Polski tygod. lek. 12 no.15:560-564 8 Apr 57.

1. (Z Zakladu Endokrynologii w Pradze; kierownik: doc. MUDr
Karel Silink i z III Kliniki Chorob Wewnetrznych. A.M. w
Krakowie; kierownik: prof. dr. Julian Aleksandrowicz).

Adres: Krakow, III Kl. Chor. Wewn. A.M. ul. Kopernika 17.

(HYPERTHYROIDISM, ther.

radiiodine (Pol))

(IODINE, radioactive

ther. of hyperthyroidism (Pol))

EXCERPTA MEDICA Sec 6/Vol 13/6 Internal Medicine June 59

2814. INTRAVENOUS APPLICATION OF CHLORPROMAZINE IN OEDEMA OF THE LUNGS - Stosowanie dożylnie chloropromazyny w obrzęku płuc - Liwyszyc S., Fromowicz K.K., Janicki K. and Rządowska I. Klin. Chor. Wewn. Akad. Med., Kraków - POL. TYG. LEK. 1958, 13/24 (915-917)

In 4 patients with oedema of the lungs satisfactory results have been obtained consisting of an immediate disappearance of oedema. No relapse occurred.

(XVIII, 6, 15)

Z III Kliniki Chorob Wewnętrznych Akademii Medycznej w Krakowie;
kierownik: Prof. dr med. J. Aleksandrowicz. Adres: Krakow, ul. Kopernika
17; III Klin. Chor. Wewn. A. M.

FROMOWICZ, Kurt Karol; MIKULOWSKI, Pawel; MODELSKI, Wojciech; URBANCZYK,
Jan

Critical evaluation of diagnostic methods in amyloidosis in the light
of bioptic studies of the renal parenchyma. Polskie arch. med. wewn.
31 no.12:1575-1583 '61.

1. Z III Kliniki Chorob Wewnętrznych AM w Krakowie Kierownik: prof.
dr med. J. Aleksandrowicz, i z Zakładu Anatomii Patologicznej AM w
Krakowie Kierownik: prof. dr med. J. Kowalczykowa.
(AMYLOIDOSIS pathol) (KIDNEY pathol) (BIOPSY)

FROMOWICZ, M.; HERCIK, L.; PROCHAZKA, D.; VICHNAR, M.

A combined epidemic of adenovirus respiratory infections and diarrhea caused by E. coli 0111 in a children's nursery.
Cesk. pediat. 18 no.9:810-817 S '63.

1. OHES v Karlovych Varech, vedouci prom. lek. M. Fromowicz
Kojenecky ustav OUNZ v Karlovych Varech, reditel MUDr. M.
Vichnar.

(ESCHERICHIA COLI INFECTIONS)
(DIARRHEA, INFANTILE)
(ADENOVIRUS INFECTIONS)
(RESPIRATORY TRACT INFECTIONS)